

and tests. The statistical control of quality rectifies this position by applying scientific statistical methods of production control at every stage of the production route, in order to detect trends which would incur substantial loss, and correspondingly reduce useful production, unless these trends were arrested before they developed to the point of causing the production of substandard commodities. This method of production control has the further valuable advantage of reducing the amount of inspection and testing that is required, frequently from 100 per cent. of the production units to 5 per cent. or less.

The use of this scientific method of production control is the logical counterpart to the use of standard specifications. Standard specifications for commodities, on the one hand, provide the producer with concise and definite statements of the detailed requirements relating to the material, equipment, or other goods he is to produce, and the exact limits within which these requirements must be adhered to. On the other hand, standard specifications which prescribe the principles of statistical quality control equip the producer with a clear statement of the production methods to be followed, the stage-to-stage check tests to be carried out, and the methods of recording these which, if faithfully adhered to, will ensure the production of commodities within the limits prescribed by the standard specification to which the work must conform.

The paramount importance that is attached to the statistical method of quality control by industrial engineers, and the most competent industrial authorities generally, provides the soundest evidence of its advantage and value as a means to efficient industrial organization. The importance attached to this form of quality control in connection with war production, in particular, is such that all English-speaking countries, with the exception of New Zealand, have adopted the American Defence Emergency Standards ZI. 1-1941 and ZI. 2-1941 for statistical methods of quality control. This subject had, of course, received much attention in Britain over a number of years prior to the issue of these American specifications. Indeed, B.S. 600—Application of Statistical Methods to Industrial Standardization and Quality Control, by Dr. E. S. Pearson which was published by the British Standards Institution in 1935, embodies the result of the years of study and examination of the subject which had preceded its issue. In Britain the importance which attached to statistical methods of quality control is emphasized by the fact that she took the unprecedented step of adopting the American Defence Emergency Standards for quality control, which were issued as B.S. 1008-1942 within a year of their publication in the United States. A little later Britain issued a revised edition of B.S. 600 in order to obtain the full advantages of the application of statistical quality control methods to her war production. Within the next year or so Canada, Australia, and South Africa had also adopted the American quality control standards.

From this it is clear that the subject of statistical methods of quality control is not one that New Zealand can afford to ignore if the Dominion is to keep abreast of the advances in industrial progress that are taking place in other countries. It is hoped, therefore, in the near future to secure the attention to this subject which is necessary to the industrial and economic interests of the Dominion. To this end the advisory panel recommended that a standing committee should be set up to sponsor the development of quality control and allied industrial subjects in New Zealand, and to recommend the adoption of standard specifications incorporating these principles. The panel also recommended that, in the meantime, an explanatory brochure should be prepared, setting out in simple terms the principles and application of quality control with particular reference to New Zealand conditions. The adoption of these principles in New Zealand will be of the utmost importance to the administration of the Standard Mark, since the use of these methods, as a condition precedent to the use of the mark in appropriate cases, would greatly assist to ensure that the commodities which are to bear the Standard Mark conform to the relevant standard specifications.